Restriction Requirement

In the Office Action dated September 9, 2002, the Patent Office required restriction between the following groups:

I-XI:	Claims 1, 3-4 and 29-31;
XII-XXII:	Claim 5; and
XXIII-XXXVIII	Claims 7-8 and 32.

Applicants hereby elect, with traverse, Group IV, which now corresponds to SEQ ID NO:21 and haplotype 4 in Table 5 of the specification. Applicants traverse the restriction requirement for the following reason.

The restriction of independent claim 1 as pending before this amendment is contrary to well-established law and patent practice. Claim 1 is directed to a genus of naturally-occurring variants of a *single* gene - the human β_2-AR gene. The different isogenes within the genus of claim 1 are defined by a Markush group of specific nucleotide sequences. A restriction requirement may not be applied to a single Markush claim. *In re Weber*, 198 USPQ 328 (CCPA 1978; *In re Haas (II)* 198 USPQ 334; MPEP 803.02. The only proper reason for the Patent Office to refuse to examine a Markush claim in its entirety is when the Patent Office finds that the subject matter in the claim lacks unity of invention. *In re Harnisch*, 206 USPQ 300 (CCPA 1980; MPEP 803.02). However, the Office Action did not allege that the β_2-AR isogenes specified by the Markush group lack unity of invention and thus the restriction of claim 1 must be withdrawn.

In addition, Applicants respectfully assert that the Patent Office must examine the entire Markush group in claim 1 as amended by this preliminary amendment because the subject matter of the Markush group in amended claim 1 has unity of invention. Unity of invention in a Markush group exists when its members "(1) share a common utility, and (2) share a substantial structural feature disclosed as being essential to that utility." MPEP §803.02.

The first part of this test is met because all of the alternative β_2AR isogenes share the *common utility* of encoding a polypeptide that can be activated by a β-agonist.

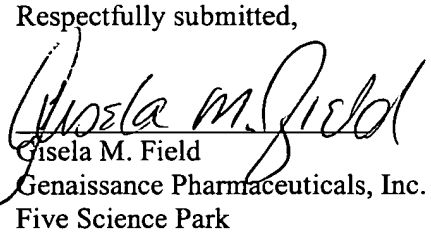
The alternative β_2AR isogenes of claims 1, 3-4, and 29-31 also share a significant structural element as required by the second part of the test. As evident by examining the β_2AR isogene sequences specified by SEQ ID NOs:19-28 and Table 5 on p. 36 of the specification, the ten β_2AR isogene sequences enumerated in the Markush group have an identical length of 523 nucleotides in the coding region, which is a region of the β_2AR gene that would be considered by the skilled artisan to be structurally significant in establishing the common utility of encoding a polypeptide capable of being activated by a β-agonist. Further, as seen in SEQ ID NOs:19-28, the β_2AR isogenes of claims 1, 3-4, and

29-31 differ by a *maximum* of only 5 out of the 523 nucleotides in this functionally significant region, making each β_2AR isogene at least *99.0%* identical to the other β_2AR isogenes in this region. Applicants assert that the high level of identity of the β_2AR isogenes within this functionally significant region constitutes the significant structural element shared by each of these isogenes.

For the foregoing reasons, Applicants respectfully submit that the Markush group of β_2AR isogenes in claims 1, 3-4, and 29-31 has unity of invention under the two-part test applied to chemical alternatives under MPEP §803.02. Thus, the division of these claims into multiple groups is improper and claims 1, 3-4, and 29-31 must be examined in a manner consistent with the Markush practice set forth in the MPEP.

Should any questions arise, or if Applicants' Agent can facilitate examination of this application, it is respectfully requested that the undersigned Agent be contacted so that any remaining issues can be resolved.

Respectfully submitted,



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